

## **ABSTRACT**

The invention regards a system reliability or failure predicting apparatus and method that incorporates known information about system component failure into a system model and uses the model with or without other acquired system data to predict the probability of system failure. An embodiment of the method includes using probabilistic methods to create a system failure model from the failure models of individual system components, predicting the failure of the system based on the component models and system data, ranking the sensitivity of the system to the system variables, and communicating a failure prediction.

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